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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,765	12/02/2003	David P. Kilgore	02-443 (80835)	1797

7590 05/23/2005

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EXAMINER

HOPKINS, ROBERT A

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 05/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/724,765

Applicant(s)

KILGORE, DAVID P.

Examiner

Robert A. Hopkins

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7 and 12-16 is/are rejected.
- 7) ☒ Claim(s) 2 and 8-11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12-3-03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claims 3,4, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 lines 1-2 recites "the fingers". There is a lack of antecedent basis for "the fingers" in previous claim limitations. Correction is requested.

Claim 4 lines 1-2 recites "the rotary members". There is a lack of antecedent basis for "the rotary members" in previous claim limitations. Correction is requested.

Claim 14 line 1 recites "the rotary members". There is a lack of antecedent basis for "the rotary members" in previous claim limitations. Correction is requested.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,5,6 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Omoto et al(5058777).

Omoto et al teaches a cyclone separator(11a) for separating wood pieces and gas comprising a cyclone housing(11a) defining an interior space and having an inlet for receiving a mixture of wood pieces and gas, and a first outlet for exhausting gas and a

Art Unit: 1724

second outlet from which wood pieces exit the cyclone housing, a vortex breaker(2a) in communication with the second outlet of the cyclone housing operable to separate the wood pieces from gas received from the cyclone housing, a wood piece discharge device(17a,18a) connected to a side of the vortex breaker opposite to the second outlet of the cyclone, and a deagglomerator(15a,16a) positioned within the vortex breaker(figure 3) operable to break up wood piece masses entering the vortex breaker into smaller wood piece masses or individual wood pieces or both before reaching the wood piece discharge device. Omoto et al further teaches wherein the wood piece discharge device comprises an air lock having a rotatable part comprising multiple wood piece receiving pockets integrally positioned around the circumference of a rotary support, a stationary part comprising a housing for the rotatable part wherein the housing includes upper and lower openings whereby one pocket can be rotated into position for receiving wood pieces at the upper housing opening while another pocket is positioned at the lower housing opening for dispensing wood pieces in a substantially air tight manner. Omoto et al further teaches wherein the first outlet for exhausting gases further comprises a cylindrical portion extending into a radially central portion of the interior space of the cylindrical housing a vertically adjustable distance.

Claims 7,12,13,15,16 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Omoto et al(5058777).

Omoto et al teaches a method of separating wood pieces from gas comprising feeding a mixture of wood pieces and gas into a cyclone housing defining an interior space and having an inlet for receiving the mixture of wood pieces and gas, and an

Art Unit: 1724

upper outlet and a lower outlet, wherein the wood pieces spiral down the cyclone housing via the lower outlet and entering an adjoining vortex breaker, disrupting spiral motion of the wood pieces in the vortex breaker, providing a wood piece mass deagglomerator(15a,16a) within the vortex breaker, operating the deagglomerator effective to break up wood piece masses entering the vortex breaker into smaller wood piece masses or individual wood pieces or both before reaching the wood piece discharge device, discharging the deagglomerated wood pieces with a wood piece discharge device(17a,18a) connected to a side of the vortex breaker opposite to the second outlet of the cyclone. Omoto et al further teaches wherein the wood piece discharge device comprises an air lock having a rotatable part comprising multiple wood piece receiving pockets integrally positioned around the circumference of a rotary support, a stationary part comprising a housing for the rotatable part wherein the housing includes upper and lower openings whereby one pocket can be rotated into position for receiving wood pieces at the upper housing opening while another pocket is positioned at the lower housing opening for dispensing wood pieces in a substantially air tight manner. Omoto et al further teaches wherein the feeding of the mixture of wood pieces and gas comprises directing the wood pieces and gas via the inlet tangentially against an inner wall of the cyclone housing. Omoto et al further teaches wherein the wood pieces are selected from at least one of wood strands, wood chips, wood wafers, and wood particles, and combinations thereof.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Omoto et al(5058777).

Omoto et al teaches all of the limitations of claim 14 but is silent as to wherein the rotary members continuously rotate at a speed of approximately 20-30 rpm. Omoto et al teaches a vanes which rotate to actively stir wood pieces to prevent a possible transfer jam, therefore it would have been obvious to someone of ordinary skill in the art at the time of the invention to determine the optimum rotational speed of the rotary members to provide the proper size distribution of wood pieces that prevents a jam of the discharge device.

Allowable Subject Matter

Claims 2 and 8-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 2 recites "wherein the deagglomerator comprises at least two rotary members positioned in a spaced apart relationship within the vortex breaker, a plurality of integral rigid fingers extend from each rotary member along a longitudinal length of each rotary member, and the rotary members are operably positioned for rotation

wherein fingers of each rotary member pass through spaces provided between fingers on the other rotary member with clearance from the other rotary member". Omoto et al teaches a deagglomerator having a single rotary member positioned within a vortex breaker. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide at least two rotary members positioned in a spaced apart relationship within the vortex breaker because Omoto et al does not suggest such a modification.

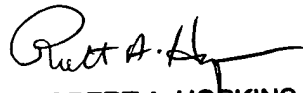
Claim 8 recites "wherein providing the deagglomerator comprises positioning at least two rotary members positioned in a spaced apart relationship within the vortex breaker, wherein a plurality of integral rigid fingers extend from each rotary member along a longitudinal length of each rotary member". Omoto et al teaches a deagglomerator having a single rotary member positioned within a vortex breaker. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide at least two rotary members positioned in a spaced apart relationship within the vortex breaker because Omoto et al does not suggest such a modification. Claims 9-11 depend on claim 8 and hence would also be allowable upon incorporation of claim 8 into claim 7.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A. Hopkins whose telephone number is 571-272-1159. The examiner can normally be reached on Monday-Friday, 7am-4pm, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rah
May 17, 2005


ROBERT A. HOPKINS
PRIMARY EXAMINER
A.U. 1724